

**Determining “What Works” in Social Programs and Social Policies:
Toward a More Inclusive Knowledge Base**

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PREFACE

Random assignment studies of social programs have become the “gold standard” or sine qua non of researchers interested in determining what works to improve children’s prospects. In this paper, Lisbeth Schorr, a member of the Children’s Roundtable and Director of the Pathways Mapping Initiative of the Project on Effective Interventions at Harvard University, asserts that rigorous research on impacts is needed but is not sufficient. Too many programs are multidimensional, cannot or should not be standardized, evolve or adapt through time, require participants’ active involvement, or are heavily dependent for success on good implementation, not just good design.

Schorr argues for more flexible forms of evaluation or assessment that require experts and practitioners to hypothesize the linkages between actions and outcomes, prioritize actions, identify interim indicators of success, and pay more attention to the attributes of programs and the institutional contexts that are essential to success. While recognizing the inevitable trade-off between knowing a few things very well and more things with less certainty, Schorr argues for greater efforts to understand broad patterns that connect activities to results, even if this means compromising the search for absolute truths.

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Even in this era of growing cynicism and shriveling resources, local groups in many parts of the country are determined to mobilize political will around achieving the tangible outcomes that the public values. Individuals and organizations are forming coalitions and acting together because they have found that fragmented, piecemeal, narrowly categorical approaches do not achieve their goals.

But these groups are often stymied when they search for reliable and coherent information about “what works” in order to improve specific outcomes. Much of the readily available guidance focuses on the difficult *processes* of building partnerships, engaging neighborhood residents, and developing new forms of governance. This is valuable information, but very little guidance is available on the *content* of effective interventions. Community coalitions may find agencies and interest groups that make a persuasive case for channeling resources in their direction. Or they may be told, “Nobody knows what will work here. You have to figure it out for yourself, because each community is unique,” as though having information about what has worked elsewhere would deny each community’s uniqueness. If they are persistent and sophisticated about where to look, community groups may find a publication or policy analyst or academic source that tells them, “Yes, a few reliable studies have indeed been done that document ‘what works,’ and these studies suggest a small number of proven programs that you may want to try to replicate.”

The lack of a broad range of solid, readily accessible, coherent information about “what works” to change community-wide outcomes is frustrating, not only to local activists, but also to service providers, policy-makers, and funders. Those who have sought a few simple solutions that can be defined and mandated from above have found that models parachuted into local communities rarely succeed in the way the original, elegantly proven pilot project did. Replications of successful programs may turn out to be diluted or distorted and without much impact. Most funders, public and private, know that messy implementation efforts often sabotage the best-laid designs. Even as they recognize that advocates who can rally political will around a simple, unitary answer to a persistent problem get the most attention, they worry about how short-lived the single-pronged, narrowly bounded solutions seem to be.

At the same time, community collaboratives, program designers, practitioners, and funders are striving to get away from ill-considered fads and well-intentioned efforts that lack real impact. As they attempt to encourage and engage in more rigorous thinking about reform, they need more help than they are now getting from researchers and evaluators. It is the thesis of this paper that, to produce the broad knowledge base now needed to promote, develop, and spread effective strategies that will actually improve lives:

- Prevailing conventions about what counts as credible knowledge must be re-examined and modified.
- Our focus must change from making yes/no judgments about individual interventions to discerning patterns from an accumulation of research and experiences.
- Our knowledge-building activities must cross systems and disciplinary boundaries, even if service delivery and funding continue to operate predominantly within self-contained silos.

Prevailing Approaches to Determining “What Works”

Conventional methods of assessing “what works” have provided information primarily about interventions where a single circumscribed problem is addressed by a single circumscribed remedy. But, as social problems have become deeper and more complex over the last 20 years, interventions that could respond to the growing burden of risk have also become increasingly complex -- and therefore harder to assess by traditional means.

Interventions that change only one thing at a time often fail *because* they change only one thing at a time. Many of the change initiatives that now seem most promising are complex efforts with multiple, interacting components that require constant mid-course correction and the active engagement of committed human beings. This applies equally to initiatives aimed at strengthening families, rebuilding neighborhoods, reforming schools, enhancing youth development, and assuring that disadvantaged four- and five-year olds are ready for school.

In addition, promising interventions typically involve continuous adaptation to local needs and strengths, to lessons learned, and to changing circumstances. They are deeply dependent on context.¹ Other factors add to the mismatch between what may be the “gold standard” of effective complex interventions and what is often referred to as the “gold standard” of evaluation methodology. Many leaders of exemplary programs are reluctant to participate in experiments involving random assignment of participants because they consider an individual’s or family’s ability to exercise choice crucial to the effectiveness of an intervention. Or they may be unwilling to shuffle children and families from one ‘condition’ to another as though they were seeds in an agricultural experiment.²

¹ National Research Council (NRC) (2002); Berliner (2002); Schorr (1988 and 1997)

² Gardner (2002).

These characteristics make it hard to use experimental methodology to assess the most promising efforts to improve important outcomes.³ Perhaps even more damaging, program design itself is distorted by the push for proof, often distorting programs even before they get off the ground. Throughout the last two decades, evaluators have been telling program people that if their program did not fit into the Procrustean evaluation bed, they should simplify, narrow, standardize, or otherwise change their design. (For a summary of the characteristics of many promising interventions that are poorly matched with experimental approaches to evaluation, see Appendix 1).

Of course, interventions that have components that *can* be evaluated through randomized experiments, without undermining their effectiveness, should be. There is no substitute for the certainty that attaches to experimental findings. But it is the very nature of the most promising responses to persistent social problems that makes them almost impossible to evaluate by the methodologically elegant ways in which we evaluate drugs or electric toothbrushes. So traditional evaluation research has excluded from consideration precisely those interventions that are most likely to have an impact. This fact, along with the tendency to evaluate programs long before they are “proud”⁴ and regardless of whether they are well implemented, helps to explain how Senator Daniel Patrick Moynihan came to embrace “Peter Rossi’s Law,” which holds “that the expected value for any measured effect of a social program is zero.”⁵

³ Nevertheless, pressure to use random assignment experiments to assess complex interventions is growing. In education reform, the current political focus on a narrow concept of “scientific research” as the basis for action seems to assume that virtually the only research that is credible is experimental. (Reeves, 2002, Viadero, 2003). A report from a Brookings Institution meeting on education reform suggested that proposed education reforms should be judged legitimate or illegitimate by the application of randomized field trials in which, “One person gets the pill and the other person gets the placebo.” (Peterson, 1999).

⁴ “Proud” is the term applied by evaluation guru Donald Campbell to programs that are stable and based on well-developed strategies, that have been solidly implemented over period of years, and which can “send up a flag that says ‘we’ve got something special that we know works and think others ought to borrow.’” Campbell (1993).

⁵ Offner (2001).

When policy makers or academics base their judgment of effectiveness – as they often do – primarily on the elegance of the evaluation methodology, many promising intervention strategies never make it into contention. Only very slim pickings emerge when the methodological funnel is constructed as narrowly as it typically is today.⁶ Thus society is robbed of rich information about interventions whose causal connections have not been proven but from which we desperately need to learn to make wiser decisions about resource allocation and program design.

Alternative Approaches to Determining “What Works”

In the face of the many difficulties in determining “what works” in complex interventions, some participants and observers of community-based efforts have simply given up on all impact evaluation, and look to richly detailed, qualitative, descriptive methods to provide needed documentation. But these can perform only a limited function. While case studies and deeply contextualized descriptions of efforts to bring about change are a wonderful source of inspiration and information, when they stand alone they are very hard to generalize from. When they make no attempt to provide even common sense connections between actions and results, when they do not stipulate even a hypothesized theory of change, they contribute little to a better understanding of how improved outcomes are best achieved. Given the current push for

⁶ Two examples: The Collaborative Center for Child Health and Development, charged with discerning connections between early childhood interventions and adult success, commissioned researchers around the country to examine more than 2,000 published, peer-reviewed studies of early childhood development, but found only 17 [sic] of these of sufficient methodological rigor to use in coming to their conclusions.

In a 2002 review for the Brookings Roundtable on Children of “what works” in after-school and youth development programs, economist Robinson Hollister found only 10 programs that met his criteria for rigor of design and therefore worth replicating or scaling up.

accountability, descriptive information is a welcome supplement to, but no substitute for, outcomes-based information.

But in the last decade there have been a number of significant efforts to develop alternative approaches to assessing the impacts of complex interventions, especially when these are intended to bring about community-wide or institutional change. These approaches move away from relying on randomized experiments as the single best evaluation methodology and seek to find ways of matching study designs more rigorously with the research questions they are intended to elucidate.⁷

The Manpower Demonstration Research Corporation and Public/Private Ventures have been especially creative in developing evaluation research designs to shed light on urgent policy and programmatic questions. They have modified random assignment methodology in ways that would allow them to obtain impact information from complex and non-standardized interventions.⁸ Additional alternate approaches include those taken by evaluators and analysts using Theory of Change Evaluations,⁹ and by some who systematically attempt to rule out “rival hypotheses” – explanations for changed outcomes other than the program or strategy in question.¹⁰

Another interesting variation, known as design-research, has evolved over the last 10 years in the education domain. It is receiving greater attention in response to current concerns that education research should be more “scientific.”¹¹ Design-research focuses on research in real-world situations; “in order to find out what works in practice,” it gives up on the notion of

⁷ Shavelson (2003).

⁸ For examples, see Bloom (2002), Brock (2002), Grossman (2002).

⁹ Connell and Kubisch (1998); Weiss (2002).

¹⁰ Yin (2000).

¹¹ The role of design experiments in education research is the topic of the January/February 2003 issue of the publication of the American Educational Research Association.

controlling variables.¹² By blending “empirical educational research with theory-driven design of learning environments,”¹³ design research makes possible generalizations that depend more “on an interpretive framework than on sampling.”¹⁴

Some of the interest in alternative methods seems to be based on the belief that only a stop-gap solution is needed. The hope is that the problem is a temporary one, that the research community simply needs to get around to doing the experiments that will provide the authoritative answers the public seeks. The idea that the missing definitive research is just around the corner is a theme that pervades From Neurons to Neighborhoods, the groundbreaking synthesis of what is now known about early child development, produced by a prestigious committee of the National Academy of Sciences.¹⁵ In its discussion of intervention research, the report refers frequently to a science that “remains to be developed,” and to systematic research that has “not yet been done.”¹⁶ It may be, however, that traditional research methods will never be able to provide all the definitive answers the committee is hoping for. Rather, as the report ultimately concludes, effective service delivery and informed policy making will have to rest on the ability to make reasonable judgments and avoid irresponsible practices in the face of incomplete knowledge.¹⁷

Among those who see the problem as neither temporary nor superficial are many who are shifting their focus from assessing the effects of individual programs or strategies, and are attempting to draw inferences from multiple sources of evidence, analyzed in the context of sturdy theory.¹⁸ They agree with the observations of educator/ psychologist Jerome Bruner, that

¹² Collins (1999).

¹³ Design-Based Research Collective (2003).

¹⁴ Shavelson (2003).

¹⁵ National Research Council and Institute of Medicine (2000).

¹⁶ NRC (2000, pp. 370 and 358).

¹⁷ NRC (2000, p. 411).

¹⁸ Sampson (1998).

“plausible interpretations (are) preferable to causal explanations, particularly when the achievement of a causal explanation forces us to artificialize what we are studying to a point almost beyond recognition as representative of life.”¹⁹

The next two sections of this paper describes one such effort, the Pathways Mapping Initiative, to assemble a knowledge base by applying reasonable judgments and plausible interpretations to “a preponderance of evidence coupled with strong theory.”²⁰

The “Mental Mapping” Approach of the Pathways Mapping Initiative

The Pathways Mapping Initiative (PMI) seeks to give communities a broad, deep, and coherent body of information that can be used to strengthen efforts to improve community-wide outcomes. PMI was established in January 2000 as part of the Project on Effective Interventions at Harvard University, with support from the Annie E. Casey Foundation. It aims to build on the wealth of findings now available about “what works,” going beyond both anecdotes and the traditional evaluation literature.

PMI’s work is based on the conviction that communities, funders, and policy-makers should not have to start with a blank slate or to scrounge, unaided, to uncover the rich lessons learned by others. We believe that communities will be able to act most effectively when they can combine local wisdom and their understanding of local circumstances with accumulated knowledge, drawn from research, theory, and practice, about what has worked elsewhere, what is working now, and what appears promising.

Although the nation has learned so much in the last decade about how families, neighbors, and social institutions can improve the life chances of children growing up in

¹⁹ Bruner (1990)

²⁰ Sampson (1998).

America's tough neighborhoods, most of the information that is readily available is not well matched to the needs of communities because it:

- comes in small, isolated, and disjointed pieces;
- arrives too late;
- is derived from a severely limited range of interventions sufficiently circumscribed and standardized to allow for elegant evaluation; and
- rarely identifies the essentials of what made the intervention work (and therefore cannot protect against the dilution and distortion that occurs when programs move from the hothouse conditions that produced strong evaluation results to the real-world conditions of scale-up – especially when scaling up involves public money).

By trying to bring breadth, depth, and coherence to a world of social policies and programs that has grown increasingly fragmented as it has become more complicated, the Pathways Mapping Initiative is constructing a knowledge base with the specific intention of making it useful to communities.

The PMI approach to assembling and distilling knowledge does not limit its explorations to identifying individual programs whose success has been *proven*; it casts a wider net to assemble evidence on “what works.” In our efforts to expand the search for – and inform the design of – social policies, programs, and strategies that will lead to improvements in specified outcomes, we have relied primarily on a consensus process that we call “mental mapping.” We convene groups of highly knowledgeable, experienced individuals, including researchers and practitioners, who are steeped in their respective fields but diverse in their perspectives and beliefs. We ask them to draw on their accumulated wisdom to make explicit their “mental maps” of what works to reach the outcome under consideration. Participants are asked to respond

initially to the question, “Considering the evidence from the research, theories, and experiences you have been exposed to over the years, what could a community most effectively do if it were committed to achieving the specific outcome under consideration (such as higher rates of School Readiness or higher rates of Family Economic Success)?”

This process borrows from the thinking behind NIH Consensus Conferences, which provide “a vehicle for moving beyond the piecemeal presentation of evidence from diverse bodies of literature and for ensuring the unbiased synthesis of findings that can inform broader discussions of effective strategies, in contrast to ‘up or down’ appraisals of individual programs.”²¹

PMI supplements the information that comes out of the mental mapping meetings by soliciting input from additional experts to fill in gaps. It also discards the claims around which there is little consensus and only weak support in theory or experience. We also do field-testing to make sure that the information we are conveying is readily understood, useful, and relevant.

Using those methods, we have constructed a prototype Pathway to School Readiness. A second Pathway (to Family Economic Success) is currently under construction, and others will follow.

Major Elements of Pathways

The Pathways that appear on our website, www.PathwaysToOutcomes.org, are constructed to build a knowledge base that will contribute to efforts to improve outcomes among disadvantaged children, families, and neighborhoods by:

- bridging disciplines;
- identifying the interventions that contribute to achieving specified outcomes;

- identifying easy-to-use indicators of progress toward specified outcomes;
- identifying the attributes of actions that make them effective; and
- identifying the elements of community and systems infrastructure that contribute to effectiveness.

1. *The Pathways approach bridges disciplines.*

We found it was possible, using the Pathways Mapping methodology, to cross disciplinary boundaries so we were no longer looking at single domains in isolation. PMI's Map of the School Readiness Knowledge Base (Figure 1), for example, shows three domains we identified in which effective action is expected to lead to higher rates of school readiness: children's health, their social and cognitive environments, and their neighborhood surroundings.

All around the country, people tell each other that it takes more than family support services to strengthen families, more than child welfare services to keep children safe, more than the police to keep neighborhoods free of violence, and more than good preschool programs to get children ready for school. The National Academy of Sciences committee that produced From Neurons to Neighborhoods concluded that successful action to improve outcomes for children and families in adverse circumstances may have less to do with the impact of specific services or programs than with wide-ranging changes in housing, employment practices, community policing, and taxation.²² But there are few existing mechanisms that allow for such cross-cutting conclusions. Interventions and funding are designed as though each system could achieve its objectives on its own – even as though each *individual program* could, in isolation, achieve valued outcomes on its own.

²¹ NRC (2000, p. 410).

²² NRC (2000, pp. 339-340).

The mental mapping approach makes it possible to structure thinking broadly, across disciplinary domains and helping systems. Without having to invent the whole logic chain from scratch, users can see the many ways communities can act effectively to improve important outcomes such as higher rates of school readiness.

2. The Pathways approach can identify the interventions that contribute to achieving specified outcomes.

We were able to identify specific actions (services, supports, and other interventions) that were likely to achieve the stipulated goals and outcomes. We organized these actions by the contributions they are hypothesized to make to achieving the outcome (see Appendix 2 for examples). Once we had identified the actions, we went back to the literature to add the rationale for believing the hypothesized connections between the actions and outcomes, and to identify the research evidence, where it exists, that supports the effectiveness of many of the actions. We did this because we believe that, while the information available to communities should not be limited to interventions that have been proved effective by methodologically elegant evaluations, it is important for users of that information to know which interventions are supported by formal effectiveness research.

By focusing attention on the links between actions and outcomes, we believe we are bringing greater coherence and discipline to the design and implementation of interventions. But because we have been able to identify so many actions that contribute to the designated outcome, the question of choices and tradeoffs becomes acute. While we assume that every action listed will be useful, not every action listed is likely to make an equally powerful contribution. Surely

high-quality dental care is not as important as high-quality childcare. But is the prevention of domestic violence as important as the prevention of child abuse?

We expect communities using Pathways to custom-craft a set of coherent priorities that take into account their unique circumstances, including what is already in place, and their own particular needs, resources, and opportunities. Pathways will help them apply a comprehensive lens to their assessment of needs and establish a framework for their analysis -- recognizing that they can't do everything, and certainly can't do everything at once.

3. The Pathways approach can identify easy-to-use indicators of progress toward specified outcomes.

By making explicit the links between actions and outcomes, Pathways guides the search for sorely needed interim indicators of progress. As communities struggle to improve, reform, and expand services, supports, and infrastructure, and to introduce a greater emphasis on prevention, interim indicators (or benchmarks) become especially important for demonstrating short-term achievements – or the lack thereof – and for revealing the need for mid-course corrections.

Everyone who has worked at the front lines knows how long it takes before the achievement of long-term goals can be documented. We also know how difficult it is for community people or politicians to stay engaged with an initiative that will not reach its ultimate outcome for many years. Leaders have to know whether they're on the right track, and that requires identifying interim milestones that can become reliable markers of progress.

At Pathways, we believe that neither these interim indicators nor the indicators that measure outcomes should have to be produced individually and *ad hoc* by every local agency or

coalition. PMI has therefore sought to identify and describe a group of interim and outcome indicators with the following characteristics:

- They are relatively easy and economical for communities to obtain
- They reflect accurately the desired state or condition
- They are readily understood by stakeholders across a community
- They can be compared to data from other sources.

As part of the School Readiness pathway, we collaborated with Child Trends to produce such indicators, each accompanied by a definition, a descriptions of its significance, and its source. These are now available for local people to select from and adapt to their own situation to document changes in conditions that matter. (See Appendix 3A and 3B for examples of indicators).

4. The Pathways approach can identify attributes of the actions that make them effective.

PMI's mental mapping process may make its greatest contribution by identifying the *attributes of effective interventions*, the characteristics that make interventions effective. In addition to broadening the available information, by applying a comprehensive lens to "what works," PMI makes possible a deeper level of understanding of *how* it works. Most research (on both human and neighborhood development) describes the natural course of normal or abnormal development. Few resources and little prestige flow to the intervention research that could guide people in *what to do*. Even fewer supports go to studies that could shed light on *how to do it*.

And yet, success in improving outcomes often depends less on the design of the intervention itself than on the characteristics of how the intervention is carried out, which tend to be hard to measure and are often neglected. Through our mental mapping process, we were able

to identify the attributes of effectiveness that seem to characterize all effective interventions and also some of the specific attributes that characterize particular interventions (see Appendix 4 for examples). We learned that a host of efforts to improve children’s health, social environment, and neighborhood conditions change outcomes and are worth investing in *when and if* they incorporate certain attributes.

The NAS Committee pointed out that what society knows about these factors is not empirical, although “the theoretical and experiential support [for these concepts] is strong.”²³ We were especially pleased to find that the NRC report surfaced a set of ingredients of success quite similar to ours, which include

- sensitivity to cultural differences
- the intangible sense of community and the message of social inclusion that communicates to children and families a sense of opportunity and high expectations
- an interplay among the soundness of an intervention strategy, its acceptability to the intended recipients, and the quality of its implementation, and
- the extent to which interventions are family-centered and community-based.²⁴

To cite an example of how this focus on attributes plays out, our early childhood mental mapping group didn’t spend time on whether “home visiting,” as a single category of intervention, works. The group surfaced information that is often hidden in more conventional summaries of research on “what works.” They concluded that in effective home visiting programs, staff training and supervision are designed to support practices that enable staff to make individuals and families feel respected and cared for, and staff are able to readily mobilize additional services and supports that go beyond the home visitor’s capacity. They cited

²³ NRC (2000, pp. 346, 353 and 366).

²⁴ NRC (2000, pp. 342, 346).

experience indicating that in home visiting programs with disappointing results, a high proportion of mothers don't engage with home visitors because they are depressed. Thus, our mental mappers hypothesized that in effective home visiting programs the home visitors would have the capacity to provide both these mothers and their children with the intensive and specialized help they need.

To take another example, when we asked what interventions were likely to be most helpful in changing outcomes for the highest-risk, most disadvantaged families, the answers didn't come in the form of recommendations for new *programs*. Rather, the answers came in the form of *connections* that must be built into existing programs and institutions—for example, to make it far easier and more routine for a Head Start teacher to obtain consultation from a mental health specialist, obtain a developmental assessment of a child she is concerned about, or mobilize housing assistance or substance abuse treatment for an overwhelmed mother.

By spotlighting the *attributes of effective services and supports*, we can help solve one problem that has bedeviled efforts to scale up and spread model programs. On one hand, it is now part of the conventional wisdom that we cannot simply replicate or clone a successful model. We have to adapt it to meet local circumstances. But we also need to know that, in our adaptations, we are retaining the essential elements and are not inadvertently undermining what works. One way to know this is by figuring out what, indeed, are those essential elements. If we can describe these with precision and in some depth, even in the absence of absolute certainty, our efforts to scale up will be much better informed and more effective, whether the initial determination of program effectiveness was made through randomized trials or by other means.

5. *The Pathways approach can identify the elements of community and systems infrastructure that contribute to effectiveness.*

Our mental mapping process confirmed how much context matters, and it enabled us to identify the elements of community and systems infrastructure that support and sustain effective change over time (see Appendix 5 for examples).

We were able to identify the *community contexts* that don't attach to a single program or intervention but are essential to improving outcomes. We concluded that communities are not likely to reach the results they are aiming for if individual programs are to be the sole unit of analysis. We cannot march program by program into the better future we seek. "What works" to achieve better outcomes for a community is a broader, more complicated question than "what *programs* work." This deeper, more contextual level of analysis can clarify the limits of individual programs and illuminate the potential synergy in the work that occurs in several different domains. It also emphasizes the importance of strengthening community capacity to monitor programs and outcomes for an entire population – to scan what's available and the gaps that remain.

Many of the contextual elements identified by Pathways as contributing to improving outcomes do not fall under the clear responsibility of an existing institution or community entity. If they are to be responded to effectively, funders and policy makers must grapple with identifying who in the community can take responsibility and what new institutions or other mechanisms may need to be put in place. Those questions simply don't surface when we ask only which *programs* are worth investing in.

The *policy and systems* context can also be decisive. A hostile regulatory, funding, and accountability climate can seriously undermine what works. The structures and institutions

within which initiatives operate often destroy the very attributes that accounted for initially successful results, especially as they try to reach more people and make use of public funds. PMI's findings suggest that when it comes to allocating resources we have to move beyond programmatic concerns, and beyond how much money is earmarked for particular programs, to focus on the terms on which money is made available.

Funding issues are problematic today not simply because of the weak political support for helping troubled families and investing in poor neighborhoods. It is also because traditional funding practices are outmoded; they do not support new understandings of what makes for effective action. Public money often is bound by restrictions that directly undermine "what works." And philanthropic funds tend to be severely time-limited, even when they seek outcomes that can only occur over the long term.

As the Finance Project points out, "categorical funding streams that provide support only in response to narrowly defined problems and are available only when problems become chronic or severe" dominate the terrain, making it almost impossible to create multi-pronged, responsive, community-based support systems that would support effective interventions.²⁵ And, of course, even categorical funds are rarely available at levels that match the needs being addressed.

The importance of the funding, regulatory, and accountability context is most keenly recognized by practitioners. People who run successful programs are full of stories about their constant struggle to swim upstream, about how they have to be willing to break or bend the rules in order to get the job done. And they can do that -- by stealth, while running pilot programs that remain small and operate at the margins and with special funding. But when they attempt to scale up, they are immediately confronted with rules, regulations, and funding realities that ultimately destroy or dilute the very attributes that made the original model successful.

In the push to hold individual programs accountable for accomplishing valued outcomes, it is easy to forget that the conditions that determine their effectiveness are rarely under the control of those being held accountable. Nor are the levers that could change those conditions under local control. Those who are at the front lines of providing community services and supports know which rules and regulations interfere with effective operations, but the crafting of those rules and regulations are in the hands of others, people whom program leaders are unlikely to be able to influence.

Unless we're prepared to rely forever on wizards who can beat the bureaucracies and the dysfunctional regulations and funding practices – because they are some combination of Mother Teresa, Machiavelli, and a CPA – we have to pay more attention to the context, and how it must be changed. By identifying the elements of the policy and systems context that support what works, and by encouraging the formation of alliances that could bring about needed change, we can ensure that many more talented people and mobilized communities are able to act on what we know to change outcomes for large populations of children and families.

The Need for a Stronger Knowledge Base

We hope that Pathways will help all stakeholders – the public, funders, practitioners, and those who benefit directly from effective services, supports, and systems – address the challenge of working in an era when trying hard and good intentions are no longer good enough. We hope to make it easier for local communities at any stage of development to work more effectively and coherently. Local decision-making, and the harnessing of local initiative, imagination, and adaptation can be pre-eminent, but are much more likely to lead to effective action when

²⁵ Hayes (2002).

combined with a broad collection of accessible knowledge that is drawn from practice and theory as well as research.

We hope that our website's interactive capacity will enable us to maintain Pathways as an evolving resource, one that becomes an ever more useful summary of what is currently known in each of the Pathways domains. As the website's users distill local experience and feed it back to us, we expect to continuously modify the knowledge base to integrate and reflect the accumulating experience and research.

In the future, we also expect to include guidance to communities on how to use the information more strategically. We hope to do that without destroying the comprehensiveness, inclusiveness, and sense of interconnections among components that users have identified as one of Pathways' strengths. We hope that the Pathways information and approach will not only provide useful tools for community assessment and for program design and improvement but also encourage stakeholders to think in a more integrated, ambitious way about building the knowledge needed to achieve important outcomes.

Part of the knowledge-building task certainly involves improving society's ability to assess the impact of complex individual programs.²⁶ But to make significant progress on the social problems that currently loom as so intractable, we must get beyond the program-by-program approach that has dominated the last several decades. As Public/Private Venture's Gary Walker and Jean Baldwin Grossman suggest in their influential paper, "Philanthropy and Outcomes: Dilemmas in the Quest for Accountability," the general assumption that dominated

²⁶ In "Philanthropy and Outcomes: Dilemmas in the Quest for Accountability," Walker and Baldwin Grossman (1999), suggest that impact assessments of individual programs should probably be limited to initiatives that are stable and have a track record, "have refined their substantive strategies based on years of operational experience," and represent "solid implementation of a particular substantive idea." Data from these sources could then be used to develop "a set of operational benchmarks by which to assess the progress of newer operational manifestations" of those particular exemplars.

incrementalist social policy in the late 1900s was that “useful changes in policy and practice would come in the form of additions or modest alterations to extant programming – in short, we were just a tinker away from resolving the problem.”²⁷ If instead the challenge is to formulate a much bolder agenda, the PMI approach may suggest some useful directions. Because the Pathways dig deep enough to reach the issues that remain hidden in traditional approaches to determining “what works,” they have the potential to stimulate action on the areas that Walker and Grossman suggest may now be paramount. These include:

- encouraging serious rethinking of basic substantive strategies;
- illuminating the need for new or expanded institutions, as opposed to additional “programs”;
- emphasizing the importance of building capacity to reach outcomes at sufficient scale to matter; and
- making visible the importance of filling gaps among interventions and forging connections among them.

The knowledge base that emerges from the Pathways process is arguably wider, deeper, more coherent, and more actionable than most similar collections of information. But will the products of this more inclusive mindset be credible? We believe that credibility established by generalizing from a preponderance of rigorously analyzed evidence is essential for societies attempting to design urgently needed social strategies. Once we agree that there is knowledge that is worth having and analyzing even though it is not *certain* knowledge, we are in a better position to incorporate the lessons to be learned from both the successful and unsuccessful intervention efforts of the last two decades. We will be able to modernize our old vocabulary,

²⁷ Walker (1999).

our traditional, compartmentalized ways of thinking, and our institutional arrangements to meet changing needs, and to address the new complexities of how to make what works actually work.

Of course this approach to knowledge building implies a trade-off. It suggests that the knowledge-building process should shift from predominant reliance on a knowledge base consisting of a few narrow, circumscribed change efforts – even when that knowledge is certain, final, and “true.” Instead, our knowledge-building efforts should enable the people making daily decisions about policies and programs to make more useful decisions by providing them with access to knowledge that is integrated, coherent, accessible and deep, and deals with a broad range of promising change efforts – even if some of that knowledge is tentative, contingent, and approximate.

The time may be ripe for a conceptual shift in our analytic work – a shift that would honor multiple ways of knowing, allow us to address more fundamental questions, and encourage us to assemble useful data about the effects of promising interventions even in the absence of absolute proof. There is increasing interest in a more inclusive paradigm for knowledge building – a paradigm that doesn’t give up on searching out the patterns that connect activities to results, even in the absence of certainty. Far from being “unscientific,” a paradigm that combines theory, logic, and evidence with intelligent judgment, analogy, insight, and creativity is the combination that the Nobel prize-winning biologist David Baltimore identifies as the basis for “the most fundamental progress in science.”²⁸ This less linear approach to systematic learning could begin to produce the practical knowledge needed to improve outcomes while simultaneously combating the prevailing nihilism, which holds that nothing can be known because the certainty we demand is not attainable.

²⁸ Baltimore (1997)

A sense of the potential of going to scale with a more pragmatic approach comes from the extraordinary work now going on in England. Soon after he was elected, Prime Minister Tony Blair established the Health Development Agency (HDA) to synthesize “evidence, theory, and practical knowledge and wisdom” to eliminate income-based health inequalities in the nation. The HDA is currently engaged in a massive effort to collect and appraise evidence from a wide variety of sources, “acknowledging the legitimacy of different types of learning.” It is converting that evidence into advice and guidance aimed at bringing about the change in both practice and systems that is needed to reduce or eliminate income disparities in health-related outcomes.²⁹

At a time of little enthusiasm in this country for governmental action to alleviate poverty and promote social justice, a new, more generous approach to identifying “what works” could provide the underpinning for an action agenda bold enough to make some of our higher aspirations into realistic goals. It could become a significant step toward achieving a wider distribution of family stability and economic security, universal school readiness and school success, and other goals the nation values.

²⁹ Kelly and Speller (2003)

References

David Baltimore, *The New Yorker*, (January 27, 1997).

David C. Berliner, "Educational Research: The Hardest Science of All," *Educational Researcher*, vol. 31 (November 2002), pp. 18-20.

Howard Bloom and James Riccio, "Using Place-Based Random Assignment and Comparative Interrupted Time-Series Analysis to Evaluate the Jobs-Plus Employment Program for Public Housing Residents" (Manpower Demonstration Research Corporation, 2002).

Thomas Brock and others, "Welfare Reform in Cleveland: Implementation, Effects, and Experience of Poor Families and Neighborhoods," (Manpower Demonstration Research Corporation, 2002).

Bruner, J. (1990). *Acts of Meaning*. Cambridge, MA: Harvard University Press.

D.T. Campbell, "Problems for the Experimenting Society in the Interface between Evaluation and Service Providers," in S.L. Kagan and others, eds., *America's Family Support Programs: Perspectives and Prospects* (Yale University Press, 1993).

Allan Collins, "The Changing Infrastructure of Education Research," in E. Lagemann and L. Shulman, eds., *Issues in Education Research* (San Francisco: Jossey-Bass, 1999).

James P. Connell and Anne C. Kubisch, "Applying a Theory of Change Approach to the Evaluation of Comprehensive Community Initiatives: Progress, Prospects, and Problems," in Karen Fulbright-Anderson, Anne C. Kubisch, and James P. Connell, eds., *New Approaches to Evaluating Community Initiatives, Volume 2: Theory, Measurement, and Analysis* (Washington, DC: The Aspen Institute, 1998).

The Design-Based Research Collective, "Design-Based Research: An Emerging Paradigm for Educational Inquiry," *Educational Researcher*, vol. 32 (January-February 2003), p. 5-8.

Howard Gardner, "The Quality and Qualities of Educational Research," *Education Week*, vol. 22.

Jean Baldwin Grossman and others, "Multiple Choices After School: Findings from the Extended-Service Schools Initiative," *P/PV Briefs* (Philadelphia, PA: Public/Private Ventures, 2002).

Cheryl D. Hayes, "Thinking Broadly: Financing Strategies for Comprehensive Child and Family Initiatives" (Washington, DC: The Finance Project, March 2002).

Mike Kelly and Viv Speller, "Moving Towards Evidence Based Practice: The Work of the Health Development Agency" (paper distributed at U.S./U.K. conference, "Finding out What Works: Advances in Evaluating Community-Based Initiatives," Baltimore, MD, January 2003).

National Research Council and Institute of Medicine. *From Neurons to Neighborhoods: The Science of Early Childhood Development, Committee on Integrating the Science of Early Childhood Development*, Jack P. Shonkoff and Deborah A. Phillips, eds., Board on Children, Youth and Families, Commission on Behavioral and Social Sciences and Education. (National Academy Press, 2000).

National Research Council. *Scientific Research in Education*, Committee on Scientific Principles for Education Research, R.J. Shavelson and L. Towne, eds., Center for Education, Division of Behavioral and Social Sciences and Education (National Academy Press, 2002).

Paul Offner, "Reducing Non-Marital Births," *Welfare Reform and Beyond Brief #5* (The Brookings Institution, August 2001).

Paul Peterson, "Can We Make Education Policy on the Basis of Evidence? What Constitutes High Quality Education Research and How Can it Be Incorporated Into Policymaking?" Brookings Press Forum (The Brookings Institution, December 8, 1999).

Douglas B. Reeves, "Galileo's Dilemma," *Education Week*, vol. 21 (May 8, 2002), p. 44, 33.

Robert J. Sampson, "Neighborhood Context of Investing in Children: Facilitating Mechanisms and Undermining Risks," Conference on "Investing in Children," Columbia University, October 1998.

Lisbeth B. Schorr, *Common Purpose: Strengthening Families and Neighborhoods to Rebuild America* (Doubleday, 1997).

Lisbeth B. Schorr with Daniel Schorr, *Within Our Reach* (Doubleday, 1988).

Richard J. Shavelson and others, "On the Science of Education Design Studies," *Educational Researcher*, vol. 32 (January-February 2003), p. 25-28.

Debra Viadero, "Ed. Dept. Offers Research Grants; Seeking 'Critical Mass' of Studies," *Education Week*, January 8, 2003, p. 23.

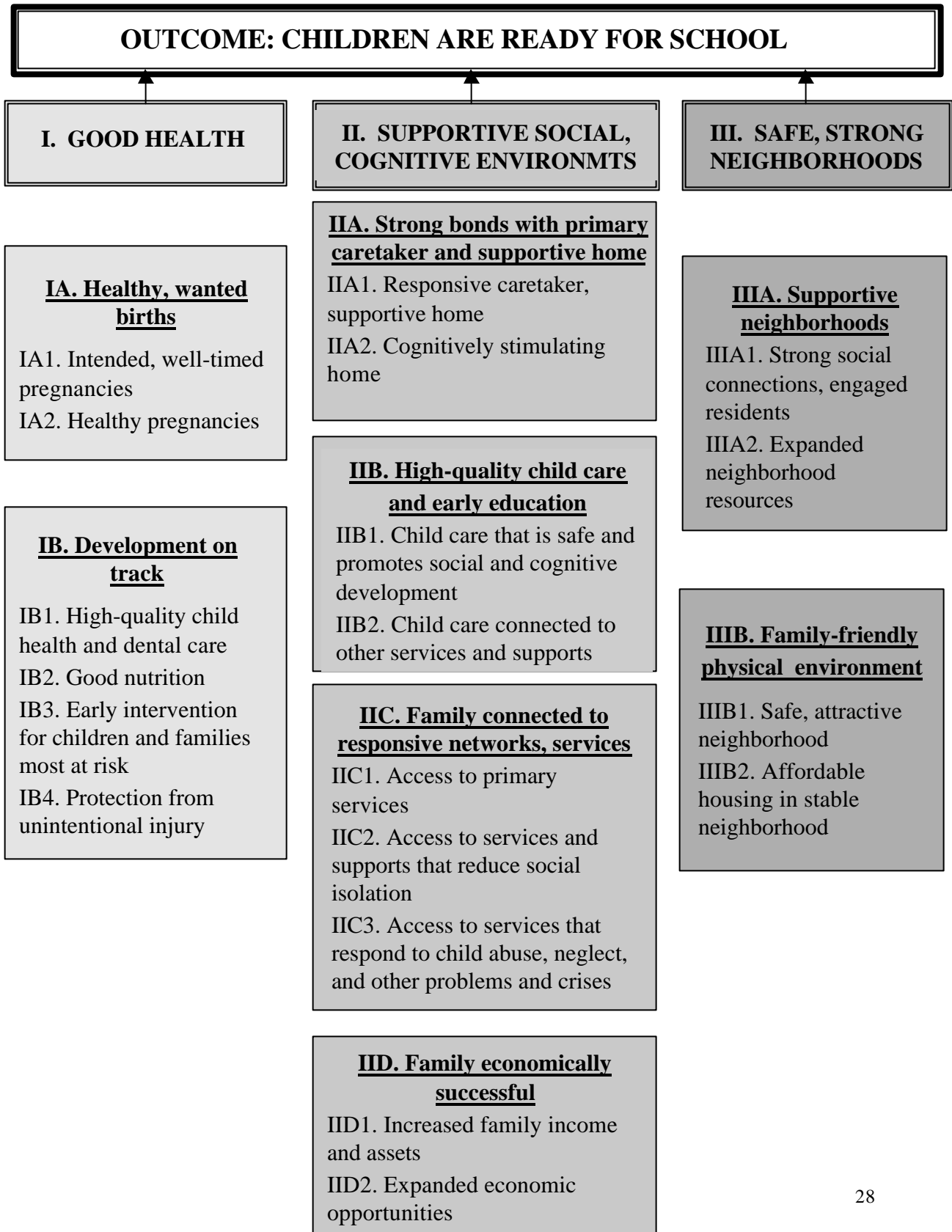
Gary Walker and Jean Baldwin Grossman, "Philanthropy and Outcomes: Dilemmas in the Quest for Accountability" *P/PV Briefs* (Philadelphia, PA: Public/Private Ventures, April 1999).

Carol H. Weiss, "What to Do until the Random Assigner Comes," in Frederick Mosteller and Robert Boruch, eds., *Evidence Matters: Randomized Trials in Education Research* (Brookings Institution Press, 2002).

Robert Yin, "Rival Explanations as an Alternative to Reforms as 'Experiments,'" in Leonard Bickman, ed., *Validity and Social Experimentation: Donald Campbell's Legacy* (Thousand Oaks, CA: Sage Publications, 2000).

FIGURE 1

Overview of the Pathway to School Readiness



APPENDIX 1

CHARACTERISTICS OF EFFECTIVE INTERVENTIONS that make them difficult to evaluate with prevailing methods

Intervention has multiple, interactive components, often from diverse domains

Intervention is constantly evolving in response to experience and changing conditions

Implementers "believe in," are actively committed to and engaged with the intervention

Intervention/program design is adapted to local circumstances, preferences, needs and strengths

Intervention emphasize significant front-line flexibility within established quality parameters

Intake/recruitment into the program is under local control (often dependent on individuals' choices) within broad parameters

Program responds to individuals in family, peer, & neighborhood context

Effectiveness is heavily dependent on community, policy, institutional, regulatory, and resource context

Interventions emphasizes continuing, respectful, and trusting relationships, and other hard-to-measure attributes

Desired outcomes are likely to be community-wide

APPENDIX 2

EXAMPLES OF ACTIONS THAT CONTRIBUTE TO SCHOOL READINESS

Goal: **I. Good Health** > Subgoal: **IA. Healthy, wanted births** >

Action Area: **IA1. Intended, well-timed pregnancies**

Actions: Services and Supports

Provide reproduction-related health education in a variety of forms appropriate to various actual and potential users.

Provide a wide range of family planning services and methods that are effective, affordable, and acceptable to a variety of actual and potential users; give clients information that helps them choose and use with satisfaction contraception and other means of ensuring that pregnancies are intended.

Provide a range of counseling and mental health services for women facing unplanned, unwanted pregnancies.

Provide community options for minors seeking family planning services or related guidance.

Actions: Community Interventions

Promote positive alternatives to early childbearing (aimed at postponing both first and subsequent pregnancies), taking full account of lessons learned in relevant fields, including youth development, school reform, and youth engagement.

Use community-wide public education campaigns to emphasize the importance of:

- All births being intended and wanted

- Postponing pregnancies until parents are ready for parenthood

- Discouraging early, unmarried childbearing

- Women being in good health before becoming pregnant

- Recognizing early signs of pregnancy

- Understanding the responsibilities involved in parenting and meeting the needs of dependent children

Offer a variety of reproductive services in settings, locations, and times that make them conveniently accessible.

Minimize barriers to the use of family planning services and reproduction-related health education, through outreach and other means.

Shape community norms in ways that discourage early childbearing and promote the idea that pregnancy should be intended and wanted.

Create an environment that attracts providers of reproductive health care to the community.

Actions: Policy and System Supports

Minimize financial barriers to reproductive health services by simplifying health insurance eligibility and enrollment processes, expanding eligibility for affordable health insurance, and advocating for health insurance to cover a variety of family planning and other reproductive services.

Make funding available in amounts and on terms that ensure a variety of family planning and other reproductive services are offered in settings, locations, and times that make them acceptable, accessible, and appropriate.

Goal: II. Supportive Social and Cognitive Environments > Sub-goal: **IIA. Strong bonds with primary caretaker and supportive home** >

Action Area: **IIA1. Responsive caretaker, supportive home**

Actions: Services and Supports

Provide formal and informal services and supports that help all new parents (and especially high-risk families) develop responsive, nurturing parent-child relationships and strong, respectful, trusting relationships with support systems. Such services and supports include:

- Well-trained, supervised adults who offer support during pregnancy, childbirth, and child's early life (e.g., Doula, home visitors)

- Education (coaching, mentoring, exposure to models of good parenting) that helps parents improve their skills, understand attachment issues, and hold realistic expectations for children's development

- Family support services and centers

- "Warm" lines that offer information and support before crises occur

- Adequate time and other supports for breastfeeding (in hospitals, among health and childcare professionals, among employers)

Make special efforts to reach out to, serve, and support the highest risk families through culturally sensitive home visits, peer support, and family support and by establishing connections with family support centers, health and mental health programs, child care and preschool programs, and specialized programs.

Encourage and help family service providers to serve as coaches, mentors, and models of good parenting.

Actions: Community Activities

Shape community-wide norms in ways that:

- Promote stable family life

Value support from formal sources, including home visits, family support programs, and parent education
Promote breastfeeding and responsible child rearing
Value time spent parenting

Provide abundant opportunities to strengthen parents in their child-rearing role and to build strong relationships between young children and their parents and other adult caregivers.

Help to connect formal services and agencies with neighborhood networks, to maximize the extent to which individual families experience services and agencies as responsive to them and as “on their side.”

Encourage supportive adults (spouses or other partners, kin, neighbors, and informal groups) to participate actively in child rearing; encourage father involvement with young children

Provide resource materials about positive parenting at community events.

Actions: Policy and System Supports

Advocate for supports to parents that help them balance labor force participation with good parenting. In particular, work to ensure that employers and the rules governing Temporary Assistance for Needy Families (TANF) take into account the importance of allowing adequate time for parenting, especially during a child’s first year.

Advocate for policies that provide paid parental leave to all workers with very young children by:

- Extending protections of the Family and Medical Leave Act to workers in mid-size and, eventually, small businesses

- Providing income to workers who take family leave, especially for infants, through a funding pool that combines public funds with contributions from employers and employees

- Extending parental leave from three months to six months

- Allowing the use of unemployment insurance to fund parental leave

Goal: **III. Safe, Strong Neighborhoods** > Sub-goal: **IIIA. Supportive neighborhoods** >

Action Area: **IIIA1. Strong social connections, engaged residents**

Actions: Services and Supports

Promote social, cultural, and civic activities for neighborhood residents to help them form and sustain relationships and build networks.

Create social activities and parenting classes for pre-school parents and children at libraries, community centers, and places of worship.

Distribute neighborhood directories of services and numbers to call for assistance, resident block lists, and other resources that connect residents to each other and services.

Create neighborhood conversation groups where residents can share hopes, dreams, and priorities for their children and the neighborhood.

Form block groups and neighborhood watch programs.

Conduct a “walkers and talkers” door-to-door campaign to help neighbors get to know each other and learn about resources.

Actions: Community Activities

Partner to host cultural and family events, festivals, and other social activities that encourage neighbors to know and support each other.

Collaborate across neighborhood cultural and ethnic groups, associations, agencies, businesses, and places of worship to work for neighborhood improvement.

Offer courses in leadership to help residents advocate for better housing and neighborhood conditions.

Strengthen the capacity of neighborhood associations to be vehicles for resident networks and to take action on issues.

Hold events that engage residents with each other, such as parties, barbecues, coffees, and garage sales.

Organize candidate forums and briefings to inform residents of pending legislation and to create opportunities for residents to share their priorities.

Hold voter registration and “get the vote out” events.

Use community action and community organizing to help build capacity within neighborhood associations.

Actions: Policy and System Supports

Require agencies and governing bodies to seek and obtain community approval for community redevelopment and family relocation plans.

Encourage agencies and governing bodies to provide support to neighborhood associations in order to involve residents in neighborhood planning and development.

APPENDIX 3A

EXAMPLES OF INDICATORS THAT MEASURE PROGRESS TOWARD SUB-GOALS

Goal: **I. Good Health** > Subgoal: **IA. Healthy, wanted births** >

- Percent low birthweight births
- Percent births to teens
- Percent women receiving late or no prenatal care

Goal: **II. Supportive Social and Cognitive Environments** > Sub-goal: **IIA. Strong bonds with primary caretaker and supportive home** >

- Percent of children whose biological/adoptive parents are legally married
- Percent of parents who read to their children in the past week
- Percent of children who, on weeknights during the school year, usually go to bed at the same time each night

Goal: **III. Safe, Strong Neighborhoods** > Sub-goal: **IIIA. Supportive neighborhoods** >

- Home ownership: Percent who rent, own or have another arrangement
- Percent of children who have moved more than once in the past year

APPENDIX 3B

EXAMPLES OF INDICATORS THAT MEASURE PROGRESS TOWARD OUTCOME OF SCHOOL READINESS

Physical and Motor Development

- Percent parents reporting their children are in excellent, good, poor etc. health
- Percent of children in expected height and weight range for their age
- Percent of children receiving required immunizations by the time of school entry
- Percent of children demonstrating fine motor skills
- Percent of children with newly detected hearing problems at school entry
- Percent of children with newly detected vision problems at school entry
- Percent of children with newly detected asthma problems at school entry
- Percent of children with newly detected disability/developmental problems requiring special education services

Social and Emotional Development

- Percent of children who easily join others in play
- Percent of children who make and keep friends easily

Language Development

- Percent of children proficient in understanding, interpreting a story read to him/her
- Percent of children able to comprehend directions, as described by interviewers
- Percent of children with satisfactory scores on a measure of receptive vocabulary

Cognitive Development

- Percent of children able to count the total number of objects in a set
- Percent of children proficient at sorting, classifying, comparing math materials by various rules of attributes

Disposition to Learn

- Percent of children working independently almost always, occasionally, etc.
- Percent of children who can follow directions
- Percent of children showing eagerness to learn new things, never, occasionally, regularly, etc.
- Percent of children who persist in completing tasks never, occasionally, regularly, etc

APPENDIX 4

EXAMPLES OF ATTRIBUTES OF EFFECTIVE SERVICES AND SUPPORTS

Initiatives aimed at improving the health of young children, their social and cognitive environments, and the neighborhoods they live in are likely to be effective **when and if** certain conditions, including the following, are met

- They are of high quality, in that staff are technically competent and not burdened with case loads that interfere with providing quality services; they are responsive to clients with diverse needs, backgrounds and languages, and characterized by mutually respectful interactions
- Their staffs have the capacity, training, support, and supervision that ensure high quality services; staff have continuing access to training, supervision, and consultation that help them acquire necessary knowledge and skills and develop a rich repertoire of responses to unexpected circumstances.
- They are psychologically and geographically accessible, in that they are welcoming to families, and respectful of their diverse needs. Children and families have reason to trust the institutions and individuals offering services and support.
- They are able to connect families with basic supports and services, supportive networks, and specialized services for specific conditions, such as mental illness, substance abuse, and disturbed parent-child relationships
- They ensure that the duration, frequency, and intensity of interventions, services, and supports are carefully calibrated to the needs, resources, and risk factors of specific children and families, and of the population served by the program.
- They pay special attention to uptake, participation, and attrition in order to reach and persevere with the highest-risk individuals and families
- Their staff working with children have skills, support, and time to be sensitive to the needs of their families, and staff working with families and other adults have skills, support, and time to be sensitive to the needs of their children

APPENDIX 5

EXAMPLES OF COMMUNITY AND SYSTEMS CONTEXTS THAT CONTRIBUTE TO EFFECTIVENESS

Examples of supportive community infrastructure

Community outcomes are most likely to improve **when and if** there are community entities that support children and families and the institutions serving them by developing such capacities as the following:

Community entities take continuing responsibility for monitoring formal agencies and organizations to ensure that all appropriate services and supports are available to those who need them.

The community formulates and disseminates consistent messages in efforts to shape norms about the importance of supporting families in their childrearing responsibilities

The community is committed to assuring the quality and availability of such primary services as health care, child care, housing, training in life/work skills, income and employment supports, family support, parent education, literacy development, safe parks, church and volunteer affiliations, and recreational and cultural opportunities

Community groups work together to assure multiple entry points to essential services and supports.

Communities partner with allies at the local, state, regional, and national levels to maximize the chances of sustaining “what works” over time.

The community recognizes and acts on the need for neighborhood-based networks and services that help families keep children safe

The community’s residents know and socialize with their neighbors, and look to each other for support

Examples of supportive policies and systems

Community outcomes are most likely to improve **when and if** supportive policies and systems are in place, including the following:

Funding policies recognize the importance of strengthening the capacity of service providers and community organizations by providing core funding for activities that cannot be supported as parts of categorical projects or programs.

Adequate, stable, predictable funding is available for activities aimed at preventing problems, in addition to services that respond to identified problems.

Funding is sufficiently flexible that services and supports can be tailored to the needs of individual families and communities. Funding policies allow programs to use multiple funding streams for two- and three-generation services and other combinations of services that traditionally have been funded separately and categorically.

Policies support the provision of multiple entry points to essential services and supports.

Policies, regulations, payment mechanisms, and training practices approach the provision of preventive services, and services to respond to acute and chronic crises in ways that:

- Impose minimal burdens on providers and families
- Support the provision of comprehensive, continuing, appropriate, and acceptable care
- Encourage the development of respectful, trusting relationships between providers and families

Make assistance with problems an integral part of programs that engage and support families in their everyday lives, such as parent support groups, child care, or classes in English as a Second Language, fitness and life skills